Figure 97

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Figure 98

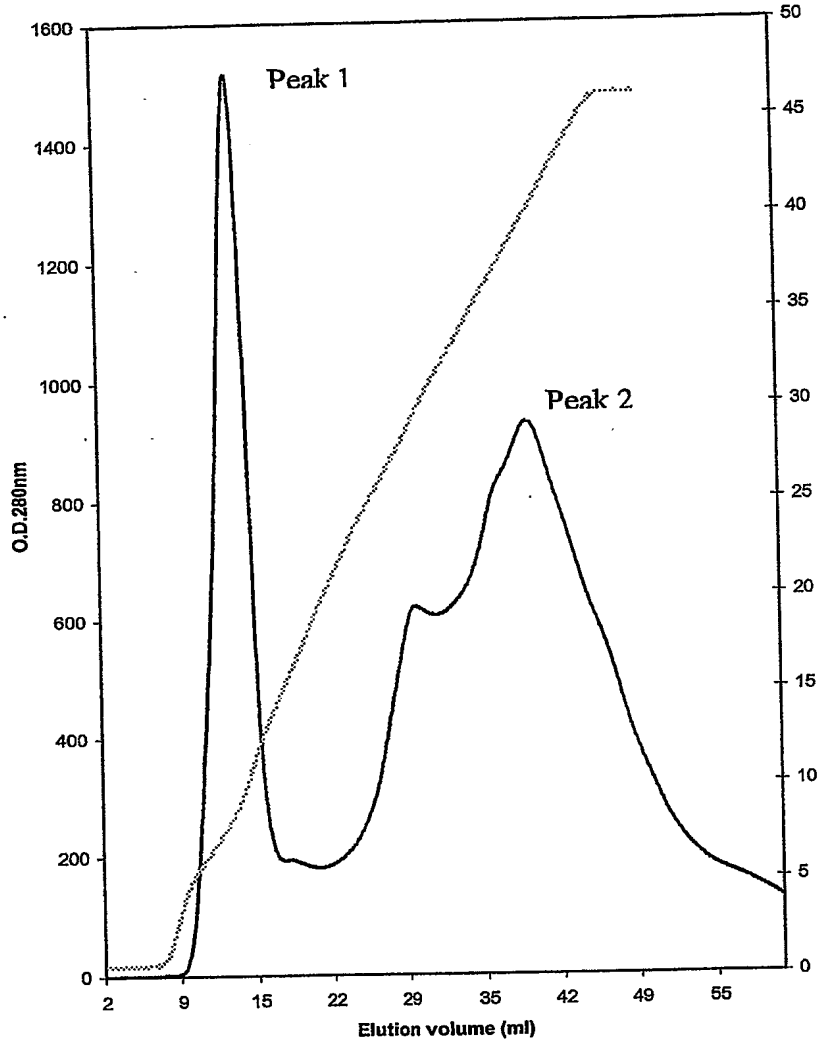
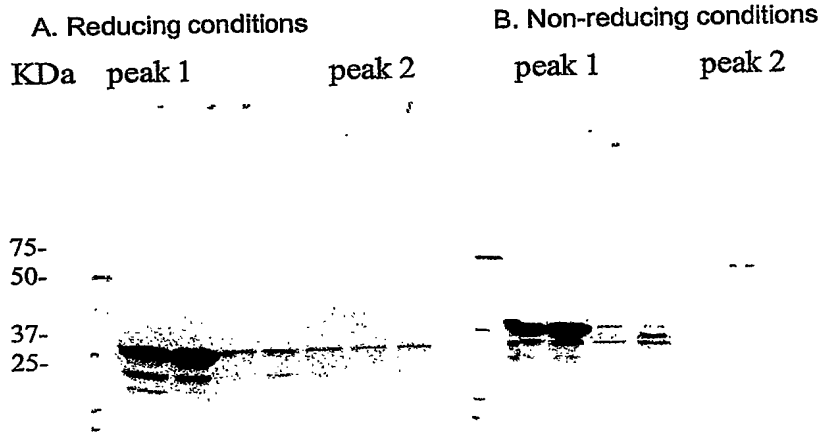


Figure 99



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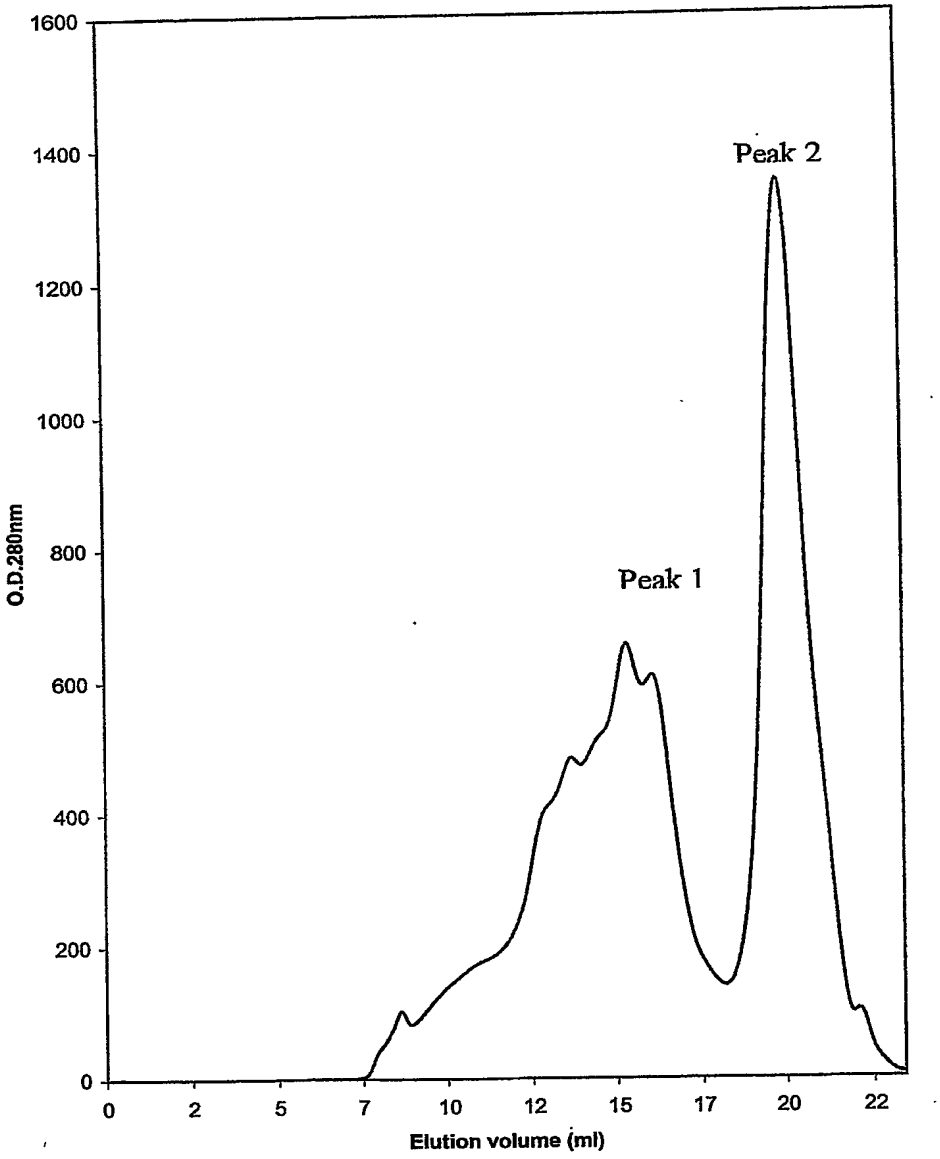
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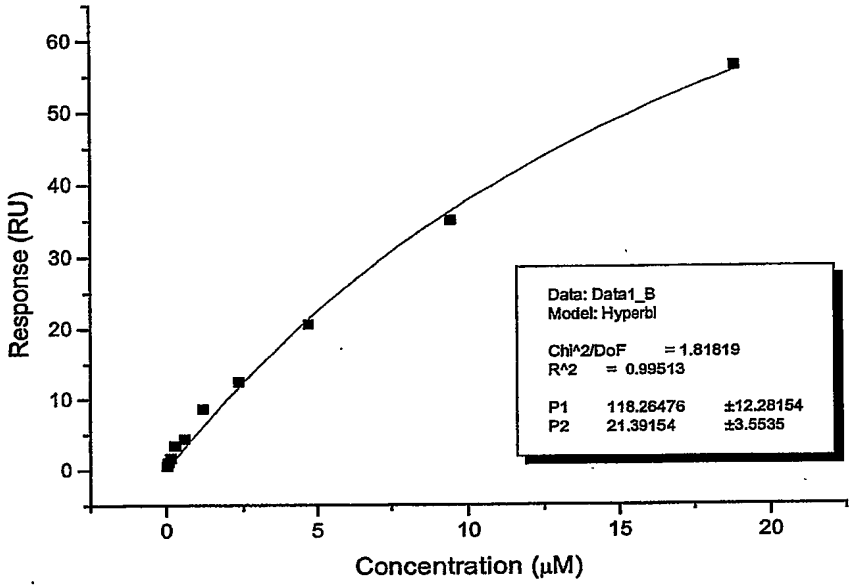
1400
1200
1000
800
600
400
200
0
O.D.280nm
Peak 2
Peak 1
0
2
5
7
10
12
15
17
20
22
Elution volume (ml)

Figure 101

A



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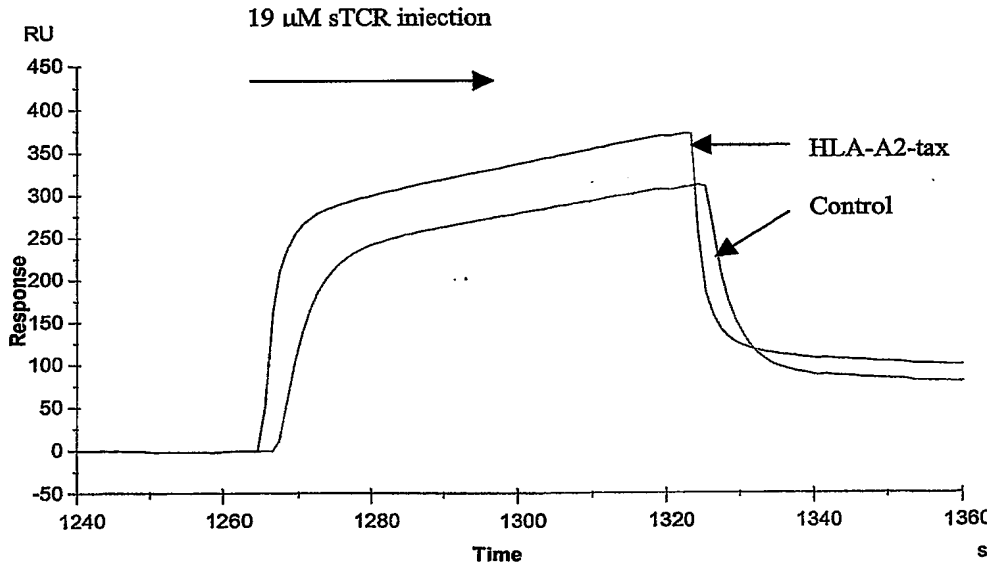

Figure 102

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Figure 103

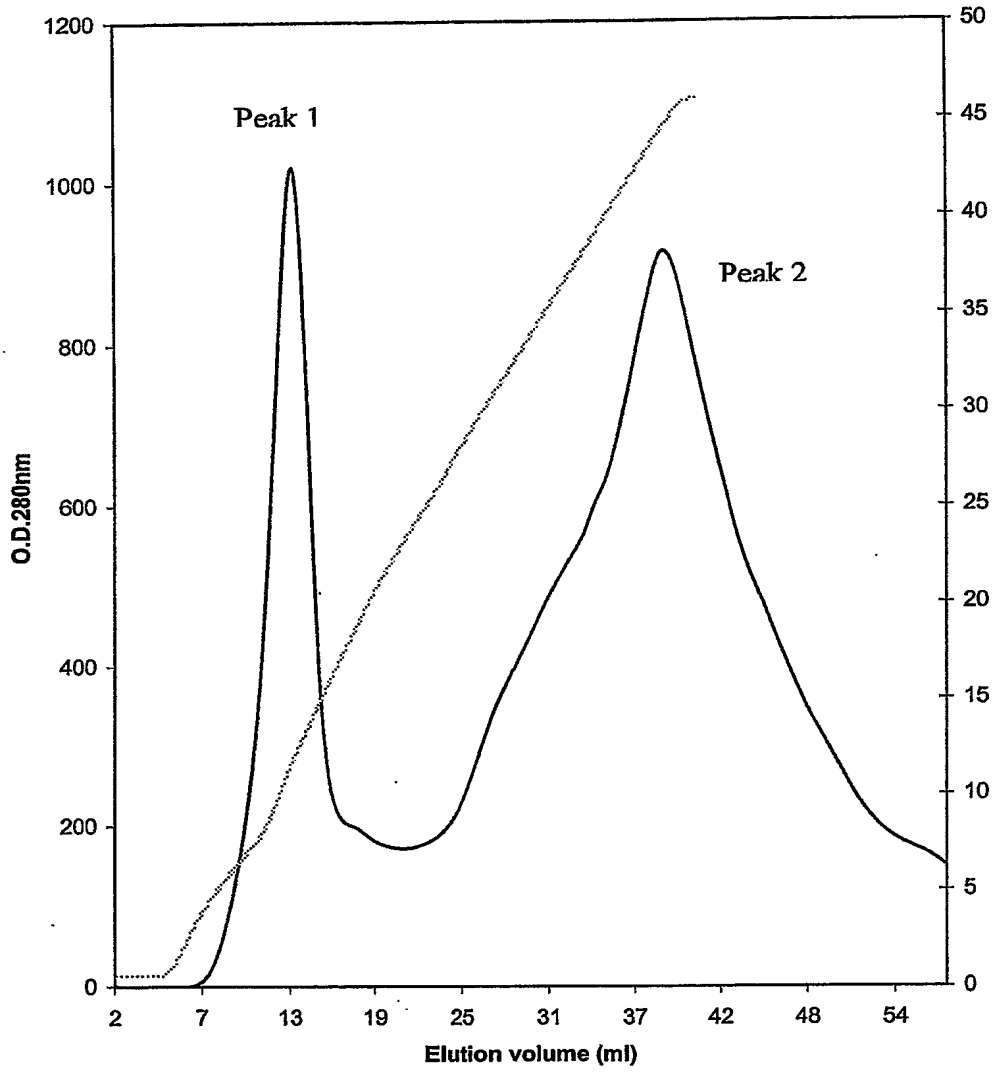


Figure 104

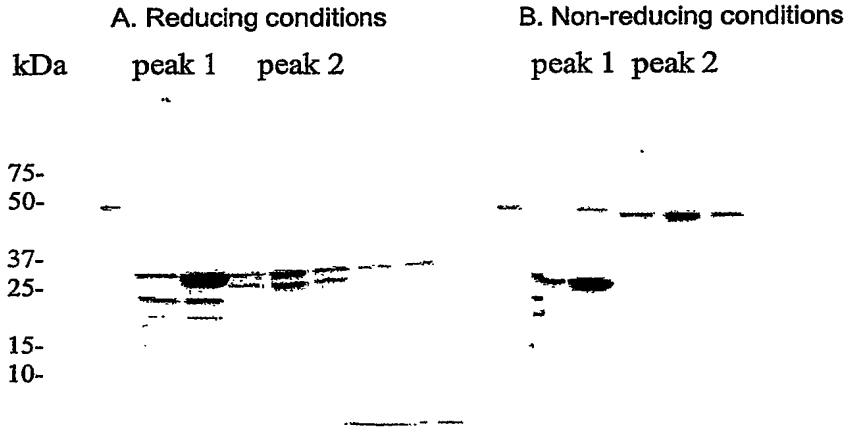


Figure 105

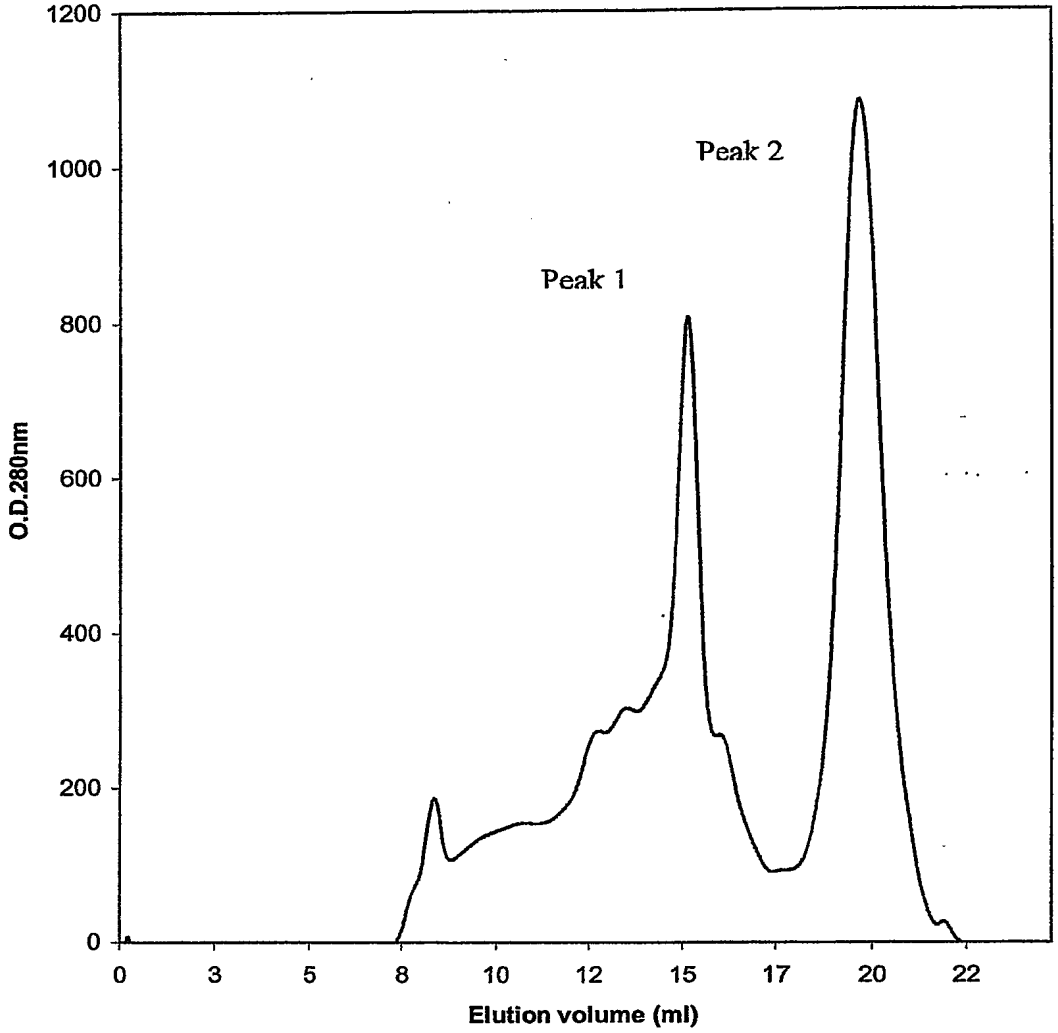
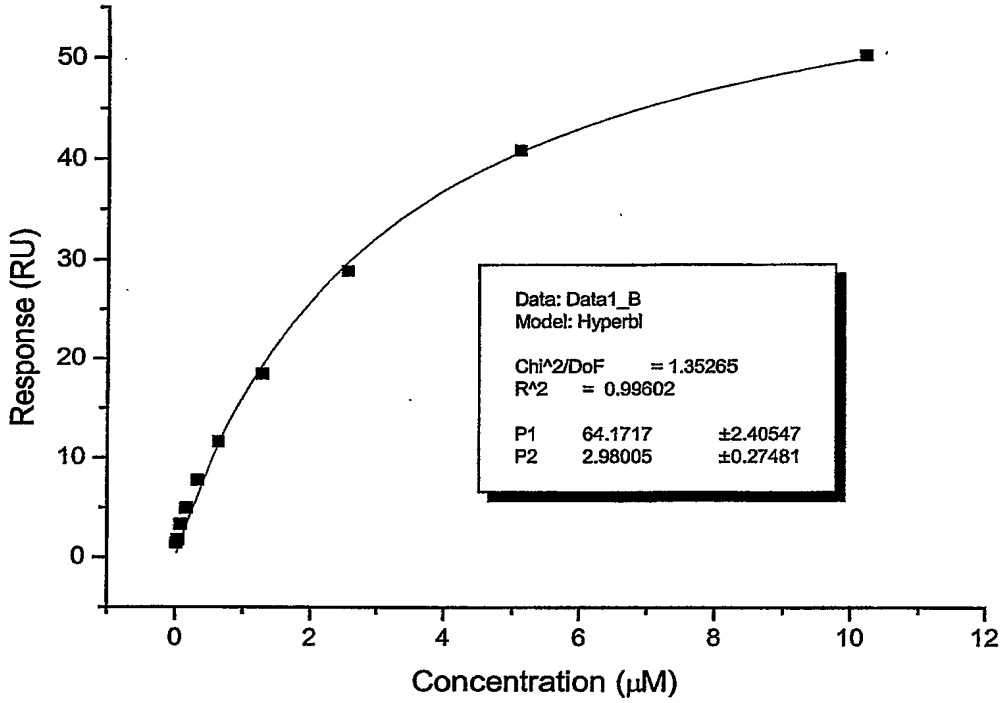

1200
1000
800
600
400
200
0
O.D.280nm
Peak 2
Peak 1
0
3
5
8
10
12
15
17
20
22
Elution volume (ml)

Figure 106

A



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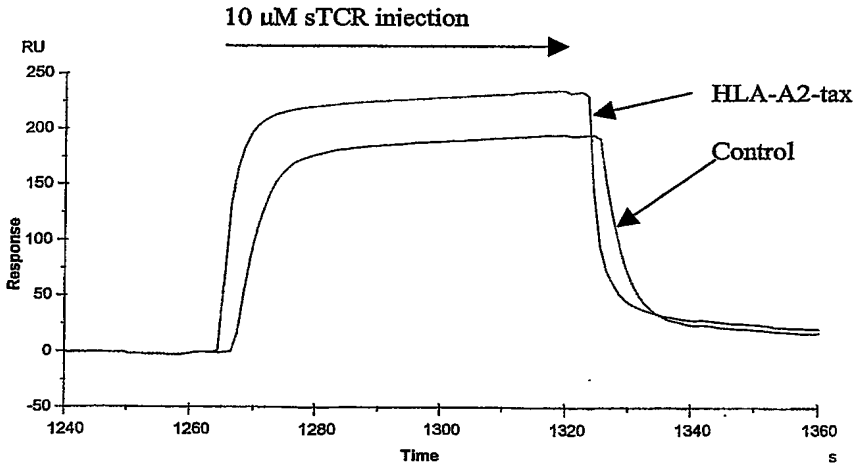

Figure 107

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 201  TTTGTTCCCT TTAGTGAGGG TTAATTCAAT TCACTGGCCG TCGTTTTACA ACGTCGTGAC TGGGAAAACC CTGGCGTTAC CCAACTTAAT CGCCTTGCAG
 301  CACATCCCCC TTTCGCCAGC TGGCGTAATA GCGAAGAGGC CCGCACCGAT CGCCCTTCCC AACAGTTGCG CAGCCTGAAT GGCGAATGGC GCGACGCGCC
 401  CTGTAGCGGC GCATTAAGCG CGGCGGGTGT GGTGGTTACG CGCAGCGTGA CCGCTACACT TGCCAGCGCC CTAGCGCCCG CTCCTTTCGC TTTCTTCCCT
 501  TCCTTTCTCG CCACGTTCGC CGGCTTTCCC CGTCAAGCTC TAAATCGGGG GCTCCCTTTA GGGTTCCGAT TTAGTGGTTT ACGGCACCTC GACCCCAAAA
 601  AACTTGATTA GGGTGATGGT TCACGTAGTG GGCCATCGCC CTGATAGACG GTTTTTCGCC CTTTGACGTT GGAGTCCACG TTCTTTAATA GTGGACTCTT
 701  GTTCCAAACT GGAACAACAC TCAACCCTAT CTCGGTCTAT TCTTTTGATT TATAAGGGAT TTTGCCGATT TCGGCCTATT GGTTAAAAAA TGAGCTGATT
 801  TAACAAAAAT TTAACGCGAA TTTTAACAAA ATATTAACGT TTACAATTTC CTGATGCGGT ATTTTCTCCT TACGCATCTG TGCGGTATTT CACACCGCAT
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1001  TCTCAAATAT GCTTCCCAGC CTGCTTTTCT GTAACGTTCA CCCTGTACCT TAGCATCCCT TCCCTTTGCA AATAGTCCTC TTCCAACAAT AATAATGTCA
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1201  AACCTTCATC TCTTCCACCC ATGTCTCTTT GAGCAATAAA GCCGATAACA AAATCTTTGT CGCTCTTCGC AATGTCAACA GTACCCTTAG TATATTCTCC
1301  AGTAGATAGG GAGCCCTTGC ATGACAATTC TGCTAACATC AAAAGGCCTC TAGGTTCCTT TGTTACTTCT TCTGCCGCCT GCTTCAAACC GCTAACAATA
1401  CCTGGCCCCA GCACACCGTG TGCATTCGTA ATGTCTGCCC ATTCTGCTAT TCTGTATACA CCCGCAGAGT ACTGCAATTT GACTGTATTA CCAATGTCAG
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Figure 107 continued

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4601  CTGCGTTATC CCCTGATTCT GTGGATAACC GTATTACCGC CTTTGAGTGA GCTGATACCG GTCGCCGCAG CCGAACGACC GAGCGCAGCG AGTCAGTGAG
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5301  TCAACACGGG ATAATACCGC GCCACATAGC AGAACTTTAA AAGTGCTCAT CATTGGAAAA CGTTCTTCGG GGCGAAAACT CTCAAGGATC TTACCGCTGT
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5501  TGCCGCAAAA AAGGGAATAA GGGCGACACG GAAATGTTGA ATACTCATAC TCTTCCTTTT TCAATATTAT TGAAGCATTT ATCAGGGTTA TTGTCTCATG
5601  AGCGATACAT ATTTGAATGT ATTTAGAAAA ATAAACAAAT AGGGGTTCCG CGCACATTTC CCCGAAAAGT GCCACCTGAC GTCTAAGAAA CCATTATTAT
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Figure 108

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 201  TTTGTTCCCT TTAGTGAGGG TTAATTCAAT TCACTGGCCG TCGTTTTACA ACGTCGTGAC TGGGAAAACC CTGGCGTTAC CCAACTTAAT CGCCTTGCAG
 301  CACATCCCCC TTTCGCCAGC TGGCGTAATA GCGAAGAGGC CCGCACCGAT CGCCCTTCCC AACAGTTGCG CAGCCTGAAT GGCGAATGGC GCGACGCGCC
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 601  AACTTGATTA GGGTGATGGT TCACGTAGTG GGCCATCGCC CTGATAGACG GTTTTTCGCC CTTTGACGTT GGAGTCCACG TTCTTTAATA GTGGACTCTT
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 801  TAACAAAAAT TTAACGCGAA TTTTAACAAA ATATTAACGT TTACAATTTC CTGATGCGGT ATTTTCTCCT TACGCATCTG TGCGGTATTT CACACCGCAT
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1301  GCAAGAGAGA TCTCCTACTT TCTCCCTTTG CAAACCAAGT TCGACAACTG CGTACGGCCT GTTCGAAAGA TCTACCACCG CTCTGGAAAG TGCCTCATCC
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3501  AAACGACGAG CGTGACACCA CGATGCCTGT AGCAATGGCA ACAACGTTGC GCAAACTATT AACTGGCGAA CTACTTACTC TAGCTTCCCG GCAACAATTA
3601  ATAGACTGGA TGGAGGCGGA TAAAGTTGCA GGACCACTTC TGCGCTCGGC CCTTCCGGCT GGCTGGTTTA TTGCTGATAA ATCTGGAGCC GGTGAGCGTG
3701  GGTCTCGCGG TATCATTGCA GCACTGGGGC CAGATGGTAA GCCCTCCCGT ATCGTAGTTA TCTACACGAC GGGGAGTCAG GCAACTATGG ATGAACGAAA
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Figure 108 continued

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4001   AGATCAAAGG ATCTTCTTGA GATCCTTTTT TTCTGCGCGT AATCTGCTGC TTGCAAACAA AAAAACCACC GCTACCAGCG GTGGTTTGTT TGCCGGATCA
4101   AGAGCTACCA ACTCTTTTTC CGAAGGTAAC TGGCTTCAGC AGAGCGCAGA TACCAAATAC TGTCCTTCTA GTGTAGCCGT AGTTAGGCCA CCACTTCAAG
4201   AACTCTGTAG CACCGCCTAC ATACCTCGCT CTGCTAATCC TGTTACCAGT GGCTGCTGCC AGTGGCGATA AGTCGTGTCT TACCGGGTTG GACTCAAGAC
4301   GATAGTTACC GGATAAGGCG CAGCGGTCGG GCTGAACGGG GGGTTCGTGC ACACAGCCCA GCTTGGAGCG AACGACCTAC ACCGAACTGA GATACCTACA
4401   GCGTGAGCTA TGAGAAAGCG CCACGCTTCC CGAAGGGAGA AAGGCGGACA GGTATCCGGT AAGCGGCAGG GTCGGAACAG GAGAGCGCAC GAGGGAGCTT
4501   CCAGGGGGAA ACGCCTGGTA TCTTTATAGT CCTGTCGGGT TTCGCCACCT CTGACTTGAG CGTCGATTTT TGTGATGCTC GTCAGGGGGG CGGAGCCTAT
4601   GGAAAAACGC CAGCAACGCG GCCTTTTTAC GGTTCCTGGC CTTTTGCTGG CCTTTTGCTC ACATGTTCTT TCCTGCGTTA TCCCCTGATT CTGTGGATAA
4701   CCGTATTACC GCCTTTGAGT GAGCTGATAC CGCTCGCCGC AGCCGAACGA CCGAGCGCAG CGAGTCAGTG AGCGAGGAAG CGGAAGAGCG CCCAATACGC
4801   AAACCGCCTC TCCCCGCGCG TTGGCCGATT CATTAATGCA GCTGGCACGA CAGGTTTCCC GACTGGAAAG CGGGCAGTGA GCGCAACGCA ATTAATGTGA
4901   GTTACCTCAC TCATTAGGCA CCCCAGGCTT TACACTTTAT GCTTCCGGCT CCTATGTTGT GTGGAATTGT GAGCGGATAA CAATTTCACA CAGGAAACAG
5001   CTATGACCAT GATTACGCCA AGCTCGAAAT ACGACTCACT ATAGGGCGAA TTGGGTACCG GGCCGGCCGT CGAGCTTGAT GGCATCGTGG TGTCACGCTC
5101   GTCGTTTGGT ATGGCTTCAT TCAGCTCCGG TTCCCAACGA TCAAGGCGAG TTACATGATC CCCCATGTTG TGAAAAAAAG CGGTTAGCTC TTCGGTCCTC
5201   CGATCGTTGT CAGAAGTAAG TTGGCCGCAG TGTTATCACT CATGGTTATG GCAGGAACTG CATAATTCTC TTACTGTCAT GCCATCCGTA AGATGCTTTT
5301   CTGTGACTGG TGTACTCAAC CAAGTCATTC TGAGAATAGT GTATGCGGCG ACCGAGTTGC TCTTGCCCGG CGTCAACACG GGATAATACC GCGCCACATA
5401   GCAGAACTTT AAAAGTGCTC ATCATTGGAA AACGTTCTTC GGGGCGAAAA CTCTCAAGGA TCTTACCGCT GTTGAGATCC AGTTCGATGT AACCCACTCG
5501   TGCACCCAAC TGATCTTCAG CATCTTTTAC TTTCACCAGC GTTTCTGGGT GAGCAAAAAC AGGAAGGCAA AATGCCGCAA AAAAGGGAAT AAGGGCGACA
5601   CGGAAATGTT GAATACTCAT ACTCTTCCTT TTTCAATATT ATTGAAGCAT TTATCAGGGT TATTGTCTCA TGAGCGATAC ATATTTGAAT GTATTTAGAA
5701   AAATAAACAA ATAGGGGTTC CGCGCACATT TCCCCGAAAA GTGCCACCTG ACGTCTAAGA AACCATTATT ATCATGACAT TAACCTATAA AAATAGGCGT
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6601   TTAGGAGTTT AGTGAACTTG CAACATTTAC TATTTTCCCT TCTTACGTAA ATATTTTTCT TTTTAATTCT AAATCAATCT TTTTCAATTT TTTGTTTGTA
6701   TTCTTTTCTT GCTTAAATCT ATAACTACAA AAAACACATA CAG
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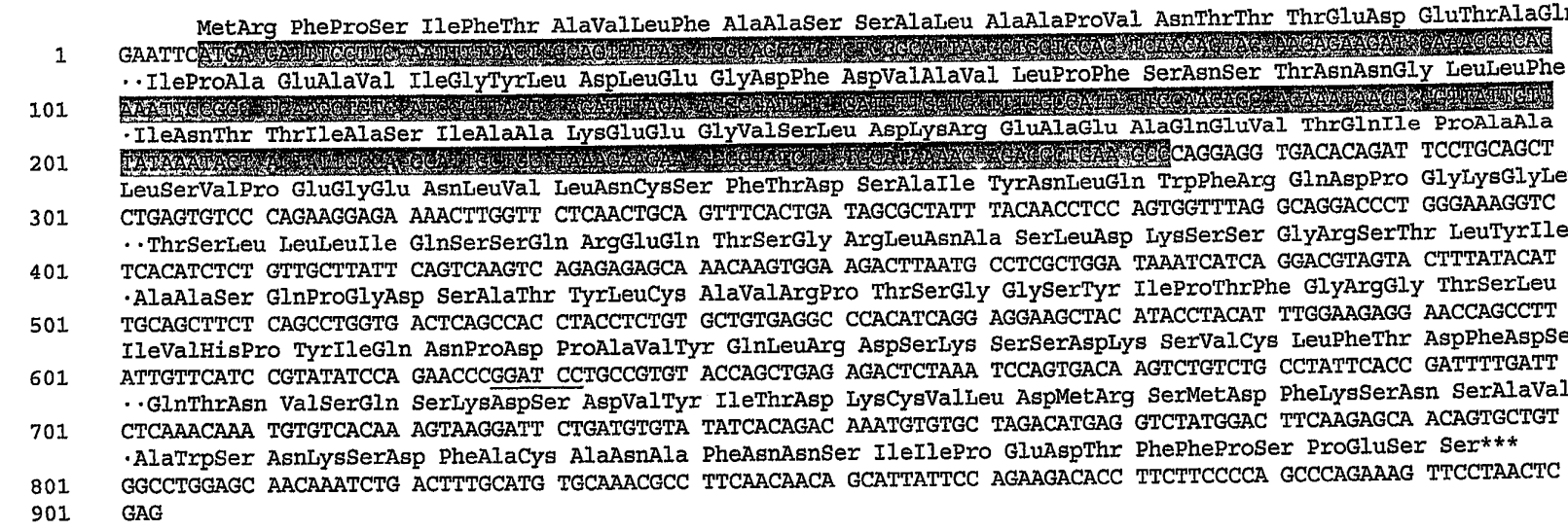
Figure 109



The pre-pro mating factor alpha sequence is highlighted. *Bam*HI site is underlined.

Figure 110

```
        MetArg PheProSer IlePheThr AlaValLeuPhe AlaAlaSer SerAlaLeu AlaAlaProVal AsnThrThr ThrGluAsp GluThrAlaGln·
1   GAATTCATGA GATTTCCTTC AATTTTTACT GCAGTTTTAT TGGCACCATC AAGCGCATTA CCGTCGTCCA CTTGAAGCTA CAAAGATGAT GAAACCGCAG
    ··IleProAla GluAlaVal IleGlyTyrLeu AspLeuGlu GlyAspPhe AspValAlaVal LeuProPhe SerAsnSer ThrAsnAsnGly LeuLeuPhe·
101 AAATTCCGGC TGAAGCTGTC ATCGGTTACT TAGATTTAGA AGGCGATTTC GATGTTGCTG TTTTGCCATT TTCGAACAGC AGAAATAACG GCTTATTGTT
    ·IleAsnThr ThrIleAlaSer IleAlaAla LysGluGlu GlyValSerLeu AspLysArg GluAlaGlu AlaGlyValThr GlnThrPro LysPheGln
201 TATAAATACT ACTATTGCCA GCATTGCTGC TAAAGAAGAA GGGGTATCTT TGGATAAAAG AGACGCTGAA TTCGGCGTCA CTCAGACCCC AAAATTCCAG
    ValLeuLysThr GlyGlnSer MetThrLeu GlnCysAlaGln AspMetAsn HisGluTyr MetSerTrpTyr ArgGlnAsp ProGlyMet GlyLeuArgLeu·
301 GTCCTGAAGA CAGGACAGAG CATGACACTG CAGTGTGCCC AGGATATGAA CCATGAATAC ATGTCCTGGT ATCGACAAGA CCCAGGCATG GGGCTGAGGC
    ··IleHisTyr SerValGly AlaGlyIleThr AspGlnGly GluValPro AsnGlyTyrAsn ValSerArg SerThrThr GluAspPhePro LeuArgLeu·
401 TGATTCATTA CTCAGTTGGT GCTGGTATCA CTGACCAAGG AGAAGTCCCC AATGGCTACA ATGTCTCCAG ATCAACCACA GAGGATTTCC CGCTCAGGCT
    ·LeuSerAla AlaProSerGln ThrSerVal TyrPheCys AlaSerSerTyr ValGlyAsn ThrGlyGlu LeuPhePheGly GluGlySer ArgLeuThr
501 GCTGTCGGCT GCTCCCTCCC AGACATCTGT GTACTTCTGT GCCAGCAGTT ACGTCGGGAA CACCGGGGAG CTGTTTTTTG GAGAAGGCTC TAGGCTGACC
    ValLeuGluAsp LeuLysAsn ValPhePro ProGluValAla ValPheGlu ProSerGlu AlaGluIleSer HisThrGln LysAlaThr LeuValCysLeu·
601 GTACTGGAGG ACCTGAAAAA CGTGTTCCCA CCCGAGGTCG CTGTGTTTGA GCCATCAGAA GCAGAGATCT CCCACACCCA AAAGGCCACA CTGGTGTGCC
    ··AlaThrGly PheTyrPro AspHisValGlu LeuSerTrp TrpValAsn GlyLysGluVal HisSerGly ValCysThr AspProGlnPro LeuLysGlu·
701 TGGCCACAGG CTTCTACCCC GACCACGTGG AGCTGAGCTG GTGGGTGAAT GGGAAGGAGG TGCACAGTGG GGTCTGCACA GACCCGCAGC CCCTCAAGGA
    ·GlnProAla LeuAsnAspSer ArgTyrAla LeuSerSer ArgLeuArgVal SerAlaThr PheTrpGln AspProArgAsn HisPheArg CysGlnVal
801 GCAGCCCGCC CTCAATGACT CCAGATACGC TCTGAGCAGC CGCCTGAGGG TCTCGGCCAC CTTCTGGCAG GACCCCCGCA ACCACTTCCG CTGTCAAGTC
    GlnPheTyrGly LeuSerGlu AsnAspGlu TrpThrGlnAsp ArgAlaLys ProValThr GlnIleValSer AlaGluAla TrpGlyArg AlaAsp***
901 CAGTTCTACG GGCTCTCGGA GAATGACGAG TGGACCCAGG ATAGGGCCAA ACCCGTCACC CAGATCGTCA GCGCCGAGGC CTGGGGTAGA GCAGACTAAC
1001 TCGAG
```

The pre-pro mating factor alpha sequence is highlighted.

Figure 111

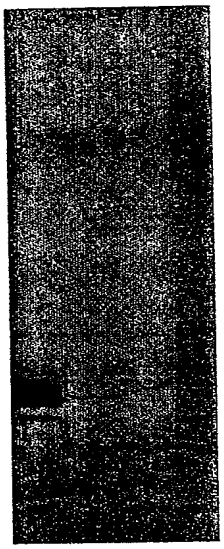


Figure 112

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Figure 113

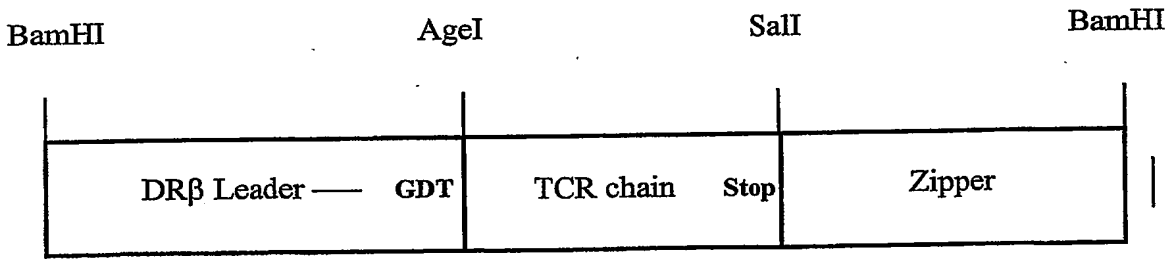

Figure 114

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Figure 115

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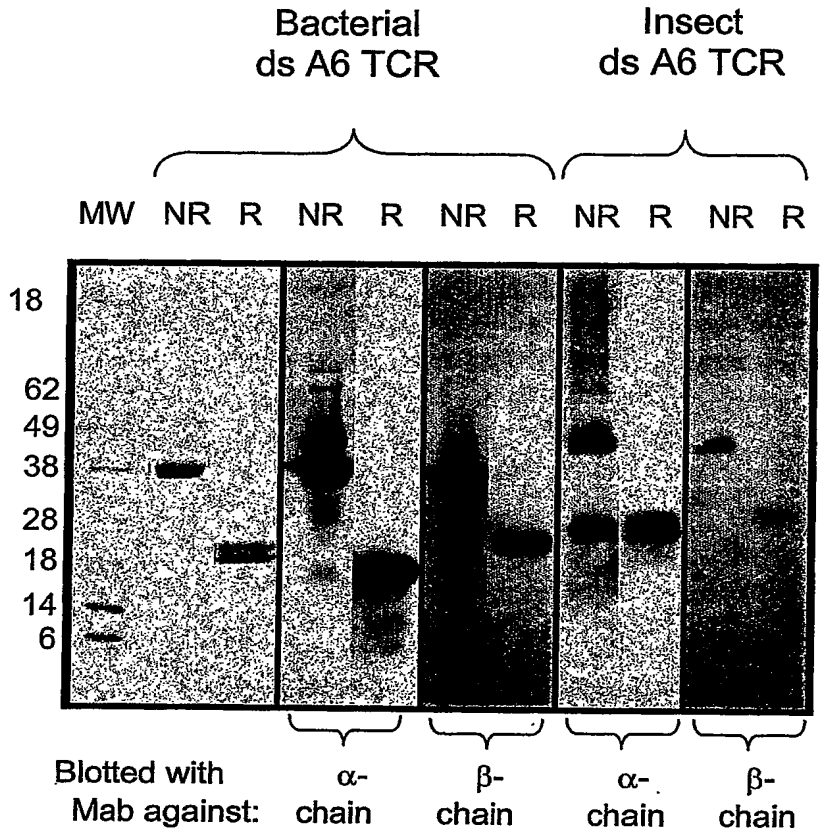
Figure 116


Bacterial ds A6 TCR
Insect ds A6 TCR
MW NR R NR R NR R NR R NR R
18
62
49
38
28
18
14
6
Blotted with Mab against:
α-chain
β-chain
α-chain
β-chain
Key:
R: Reduced
NR: Non-reduced